
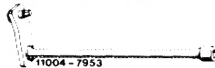

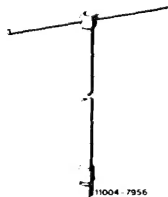


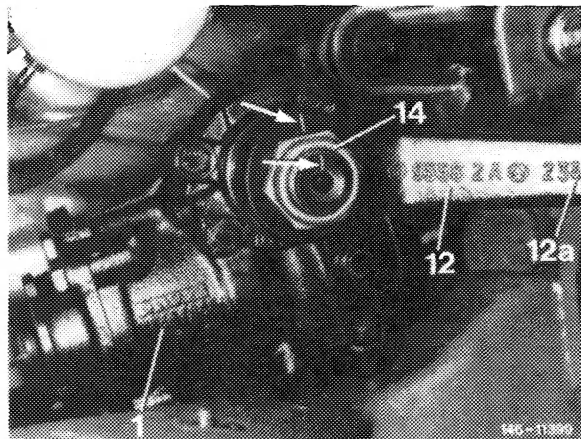


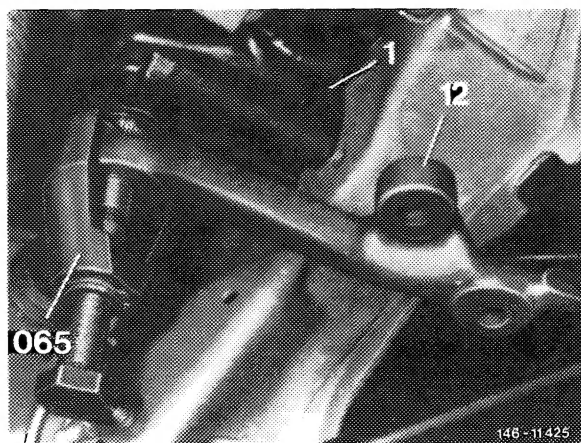
46—480 Adjustment of power steering in vehicle

Adjusting value		Ncm
Total friction torque of steering measured at steering worm		110—160
Tightening torques		Nm
Hex. collar nut on adjusting screw		60—65
Self-locking hex. nut on steering shaft		160—200
Special tools		
Puller for pitman arm	 11004-7227	100 589 04 33 00
Pin wrench element 6 mm 3/8" square	 11004-7953	123 589 01 10 00
Box-end wrench element 19 mm 3/8" square	 11004-7954	123 589 01 03 00
Socket wrench	 11004-7956	123 589 01 09 00
Torque wrench 1/2" square 0—400 Ncm	 11004-7994	123 589 02 21 00
Mounting for torque wrench	 11004-10488	126 589 13 63 00
Conventional tools		
Allen wrench insert 3/8" with joint for hex. socket screw 6 mm	e.g. made by Hazet, D-5630 Remscheid order No. 2740	
Slide handle 3/8" 200 mm long	e.g. made by Hazet, D-5630 Remscheid order No. 8815	
Extension 3/8" 255 mm long	e.g. made by Hazet, D-5630 Remscheid order No. 8821-10	

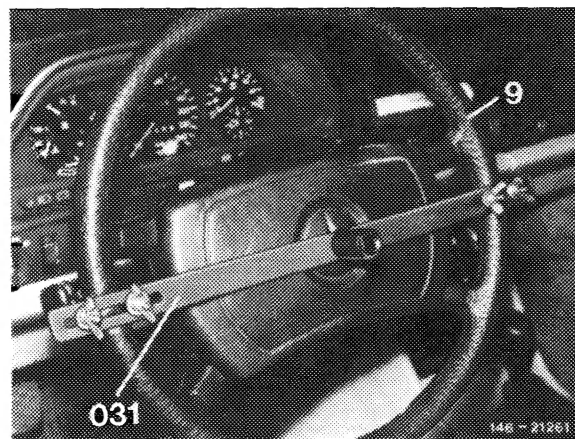
1 Unscrew self-locking hex. nut (14) from steering shaft.



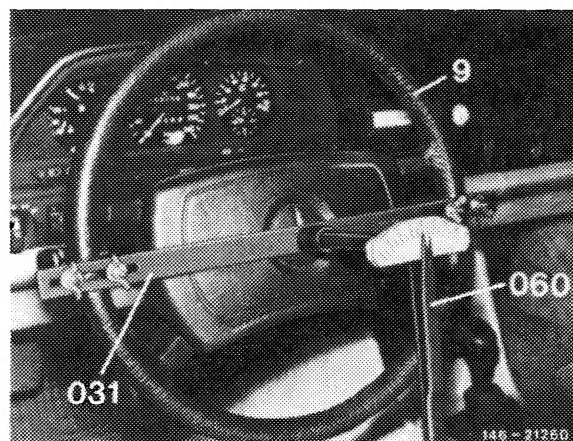
2 Pull pitman arm (12) from pitman shaft with puller (065).



3 Fasten mounting for torque wrench to steering wheel.



4 Insert torque wrench (060) into mounting (031) and turn steering several times from lock to lock, while measuring friction torque.

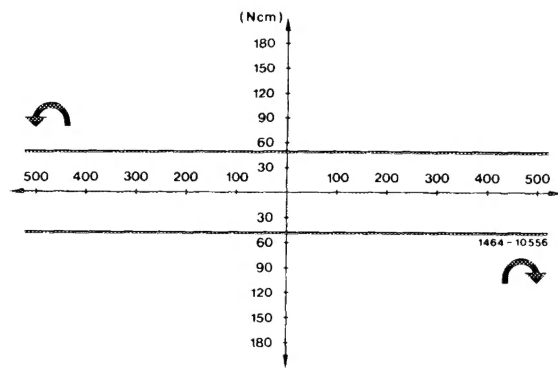


5 The steering must be readjusted, if no increase of friction torque shows up in center range when turning steering from lock to lock.

Example: Friction torque of a used steering. The friction torque is the same over entire turning range.

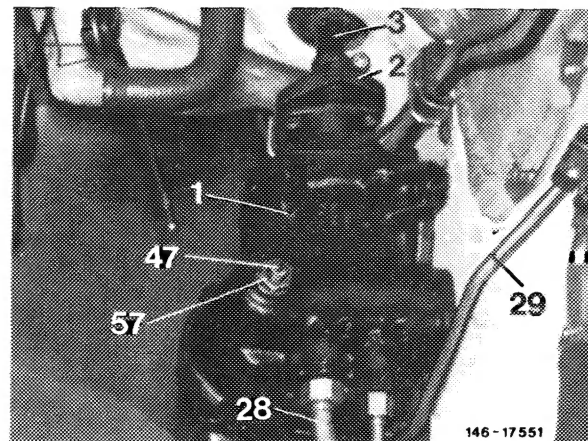
Attention!

Do not readjust steering, if friction torque increases above 110 Ncm in center range of steering.



Adjusting friction torque

6 Loosen hex. collar nut (57) and turn adjusting screw (47) approx. 1/4 turn to the left. Tighten hex. collar nut to 60 Ncm.



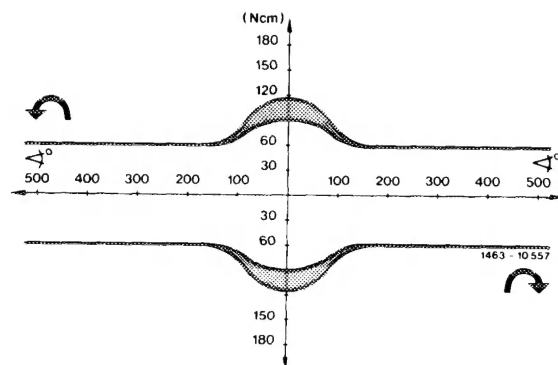
7 Check friction torque. In center range, torque should be 30–60 Ncm above basic friction torque measured before.

Example: Friction torque of steering following adjustment

Basic friction torque = 60 Ncm

Increase in center range = 30–60 Ncm

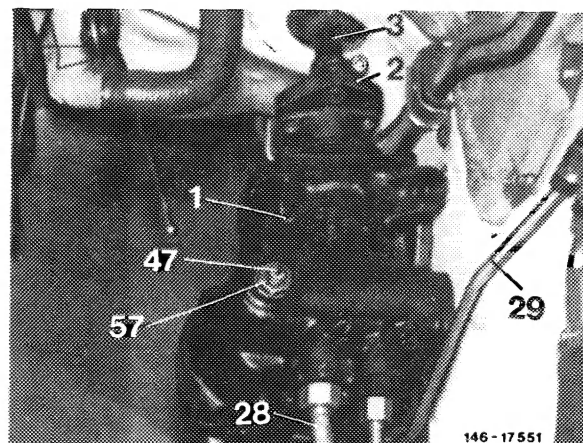
Total friction torque = 90–120 Ncm



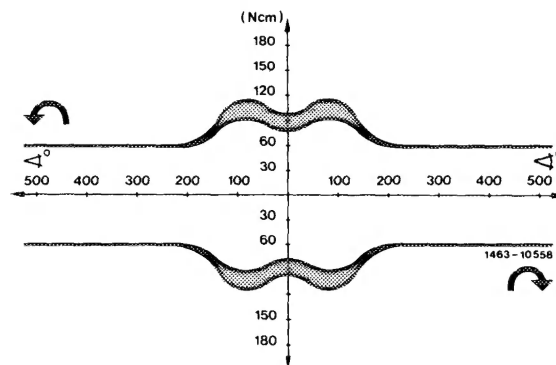
If this increase is not attained, unscrew adjusting screw once again by 1/8 to 1/4 turn.

When turning beyond center position, the friction torque should not exceed 120 Ncm.

Turn steering from lock to lock. Steering should not bind across entire turning range.



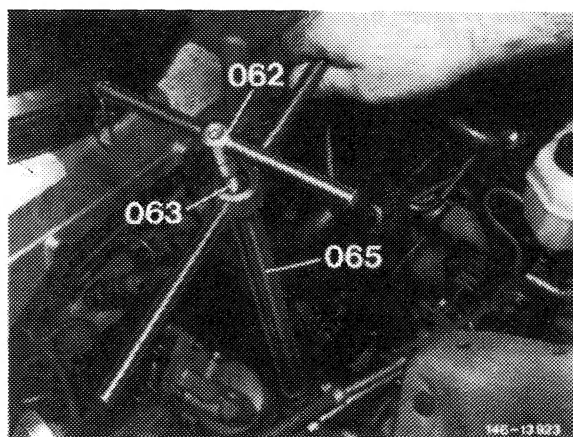
Note: On a steering gear which has not been readjusted the friction torque may slightly drop in center range, while the friction torque increases at the left and right of center. The slight drop in friction value is of no importance and shows up on steering wheel by a minimum play, which cannot be removed.



8 Application of special tools and commercially available tools:

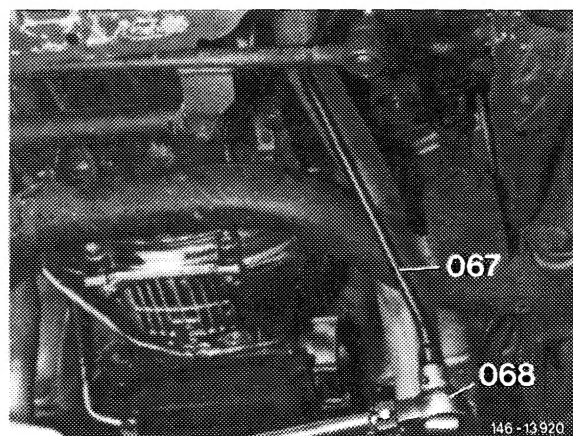
a) All models with engine 115 and 615, 616, 617

For adjustment, use socket wrench part no. 123 589 01 09 00 (065) together with slide handle (062), extension (063) and Allen wrench insert with joint.

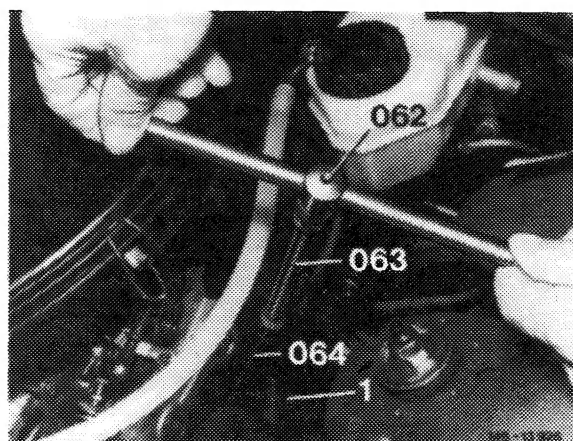


b) All models with carburetor engine 110 and 123

For loosening or tightening of hex. collar nut from below, use box-end wrench part No. 123 589 01 03 00.

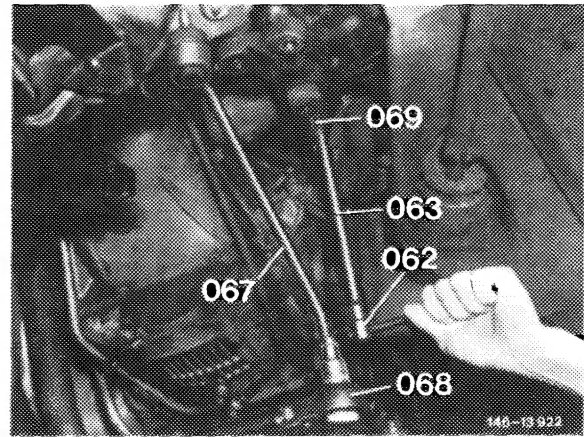


Turning of adjusting screw requires:
Allen wrench with joint (064), extension (063) and slide handle (062).



c) All models with engine 102 and gasoline injection engines 110

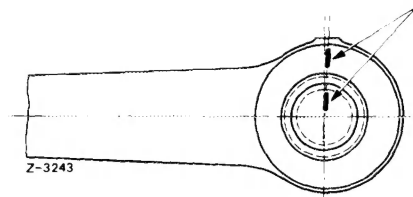
For loosening and tightening hex. collar nuts from below, box wrench part No. 123 589 01 03 (067) and for setting adjusting nut from below, the Allen wrench (pin wrench) insert part No. 123 589 01 10 00 (063) will be required.



All models

9 Clean splining on steering shaft (pitman shaft) and on pitman arm.

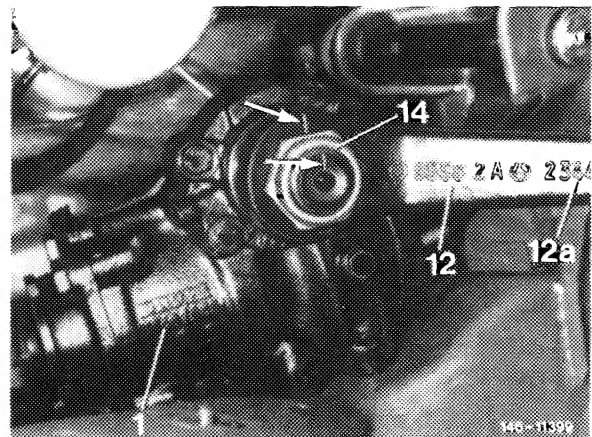
10 Slip pitman arm on steering shaft (pitman shaft), mark on arm should be in alignment with mark on steering shaft (pitman shaft).



11 Attach pitman arm with a new self-locking hex. nut. Tighten hex. nut to 160–200 Nm.

Attention!

The self-locking hex. nut should always be replaced.



12 Remove mounting from steering wheel.

